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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/625,287

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CU-3301 WWP

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EXAMINER

XIAO, KE

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

04/22/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/625,287	Applicant(s) PARK ET AL.	
	Examiner Ke Xiao	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 3-10 is/are allowed.
- 6) ☒ Claim(s) 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding **Claim 2**, the claim recites the limitation "wherein the active address interval is substantially equivalent to being driven at 85 Hz when a refresh rate is 60 Hz by substantially fixing a frame interval to 16.7ms". However there is no support for such a limitation in the detailed specification and no explanation of how the device would operate under such a limitation. The well known definition of frequency in the art is how many times a full period of a signal is repeated during a fixed time period, usually one second. And according to the detailed specification the refresh rate is 60 Hz which is controlled by the V_sync which has a full period of 16.7ms (Fig. 6), and the active address interval is driven at 60 Hz as well which is controlled by the CPV which has a full period of 16.7ms (11.2ms + 5.5 ms) the same as the V_sync (Fig. 6). Further according to the detailed specification the refresh rate as well as the active address interval *must* be synced with one another in order for the display to be operable.

Allowable Subject Matter

Claims 1 and 3-10 are allowed.

Regarding independent **Claim 1**, prior art (Nose, Fig. 13) teaches all limitations of the claim except a current boosting section for increasing current amount supplied to the gate bus lines during the vertical blanking period interval in response to a pulse width modulation signal. It is noted that prior art does show a current boosting section responsive to a pulse width modulation signal. However said current boosting section is not used to supply gate bus lines and is not operational during a vertical blanking period as claimed.

Response to Arguments

Applicant's arguments filed March 22nd 2010 have been fully considered but they are not persuasive.

Regarding Claim 2, the applicant argues that the description of the related prior art shows the active interval being driven at 85Hz with a CPV enable time of 11.2ms and a blank or black signal insertion time of 5.5ms. Thus the claim is enabled. The examiner respectfully disagrees. The 11.2ms *by itself* would indeed approximately equate to 85Hz driving, however the CPV signal is not made up of solely the 11.2ms time interval. As the applicant clearly points out there is a 5.5ms blanking period which follows the 11.2ms interval. Therefore, the *next repeat* of the start to start time between CPV enable signals is 16.7ms, as stated in the claims as well as the specification. This

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does *not* equate to an 85Hz driven scheme. For the driving scheme to be 85Hz, the CPV enable time *must* occur 85 times during the interval of one second. It is occurring only 60 times because of the additional 5.5 blanking periods, therefore it is driven at 60Hz and not 85Hz.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ke Xiao whose telephone number is (571)272-7776. The examiner can normally be reached on Monday through Friday from 8:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ke Xiao/
Examiner, Art Unit 2629